

Advanced Java Lab

Week-1

Roll Number: 238W1A12C4

1. Install JDBC & Create Basic Connection to MySQL

Code:

```
package com.mycompany.mavenproject2;
```

```
import java.sql.Connection;
```

```
import java.sql.DriverManager;
```

```
public class Mavenproject2 {
```

```
    public static void main(String[] args) {
```

```
        String url = "jdbc:mysql://localhost:3306/mydb";
```

```
        String username = "root";
```

```
        String password = "";
```

```
        try {
```

```
            // Load MySQL JDBC Driver
```

```
            Class.forName("com.mysql.cj.jdbc.Driver");
```

```
            // Establish connection
```

```
            Connection con = DriverManager.getConnection(url, username, password);
```

```
            System.out.println("Connected to the database successfully!");
```

```
            con.close();
```

```
        } catch (ClassNotFoundException e) {
```

```
            System.err.println("JDBC Driver not found: " + e.getMessage());
```

```
        } catch (Exception e) {
```

```

        System.err.println("Database error: " + e.getMessage());
    }
}
}

```

Output:

```

--- compiler:3.13.0:compile (default-compile) @ mavenproject2 ---
Nothing to compile - all classes are up to date.
--- exec:3.1.0:exec (default-cli) @ mavenproject2 ---
Connected to the database successfully!
-----
BUILD SUCCESS
-----
Total time: 3.726 s
Finished at: 2025-11-22T17:25:51+05:30
-----

```

2. Write a simple JDBC program to insert and retrieve data using Statement interface.

Code:

```

package com.mycompany.mavenproject2;

import java.sql.*;

public class Mavenproject2 {
    public static void main(String[] args) {
        String url = "jdbc:mysql://localhost:3306/mydb";
        String username = "root";
        String password = "";

        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = DriverManager.getConnection(url, username, password);

            Statement stmt = con.createStatement();

```

```

        // Insert data

        String insertQuery = "INSERT INTO students (name, age) VALUES ('Bharath',
20)";

        int rows = stmt.executeUpdate(insertQuery);

        System.out.println(rows + " record inserted.");

        String selectQuery = "SELECT * FROM students";

        ResultSet rs = stmt.executeQuery(selectQuery);

        System.out.println("Student Records:");

        while (rs.next()) {

            System.out.println(rs.getInt("id") + " | " +

                                rs.getString("name") + " | " +

                                rs.getInt("age"));

        }

        con.close();

    } catch (Exception e) {

        System.out.println(e);

    }

}

}

```

Output:

```

[ --- compiler:3.13.0:compile (default-compile) @ mavenproject2 ---
  Recompiling the module because of changed source code.
  Compiling 1 source file with javac [debug release 24] to target\classes
] --- exec:3.1.0:exec (default-cli) @ mavenproject2 ---
  1 record inserted.
  Student Records:
  1 | Bharath | 20
  -----
  BUILD SUCCESS
  -----
  Total time:  5.681 s
  Finished at: 2025-11-22T17:29:29+05:30
  -----

```